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FILON

Unlimited Uses for FILON®

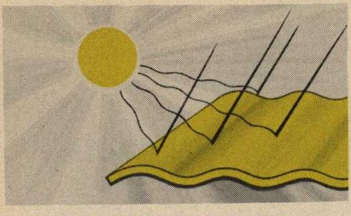
Reinforced Fiberglass-and-Nylon Plastic Panels

EXCLUSIVE GUARANTEE

- Superior Fiberglass and exclusive Nylon reinforcement for greatest strength
- Uniform thickness and corrugation for better installation and uniform diffusion of light and color
- Shatterproof for absolute safety
- Weatherproof for maximum durability and lasting beauty
- Maximum color stability through use of finest quality resin and pigments
- Exceeds Commercial Standard CS 214-57 issued by the U. S. Department of Commerce
- Only FILON panels are produced with the continuous electronically controlled Patented Process, U. S. Patent Number 2784763

A. I. A. FILE NO. 26-A-9

FOR STRENGTH, BEAUTY, LONG LIFE — Specify *FILON*®

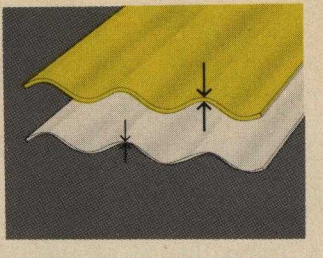


FILON HAS HEAT CONTROL

THERMOBLOK, FILON's newly developed heat control additive is built-in to six exclusive colors for maximum coolness. THERMOBLOK colors are specifically recommended for patio roofs and awnings. For evaluation of THERMOBLOK colors, see Heat and Light Transmission Values Chart, below.

FILON HAS EXTRA STRENGTH

In addition to the Super-Fi Fiberglas, parallel nylon strands, as shown in this magnified view, assure greater strength, and superior over-all quality. (See Loading Strength Data, below.)



FILON HAS UNIFORM THICKNESS

Uniform thickness assures maximum durability, even dispersion of glass fibers, resins and color, and perfect diffusion of light. This feature also eliminates premature failure at all fastening points.

FILON HAS UNIFORM CORRUGATION

A good nesting overlap is essential for a weather-tight, waterproof seal. This proper overlap is assured in all FILON panels by perfectly uniform corrugation — a result of built-in quality control.

TECHNICAL DATA

WEATHER RESISTANCE

FILON is impervious to all weather conditions. Resists mild acids, salt water and corrosion. Does not warp, rot or buckle. Accelerated weather tests equivalent to many years of actual exposure show virtually no deterioration or appreciable change in color.

FIRE RESISTANCE

Falling embers, cigarettes or sparks will not ignite FILON. Fiberglas, an important part of Filon panels, has well known fireproof properties. These glass fibers act as a barrier, retarding flame spread, and a direct flame of 850 degrees is necessary before FILON will burn.

ACID RESISTANCE

FILON is resistant to most chemicals normally found in industrial buildings. It is recommended for use in the presence of water, mild acids, hydrocarbons, alcohols, peroxides, carbonates, and diluted halogens.

SHATTER RESISTANCE

FILON has impact strength of approximately 30 ft. lbs. per inch of notch by the Izod impact test method. It resists vibration and/or shock, will not shatter when struck by falling objects or other hazards.

MOISTURE RESISTANCE

FILON immersed in water at 100°F. for 7 day periods remained visibly unchanged in laboratory tests.

MAINTENANCE FREE

FILON has a *super-smooth* surface on both sides which cannot collect or hold dust and dirt. Thus, maintenance is held to a minimum. An occasional light hosing is all the care normally necessary. And since colors are built in to last, FILON panels require no painting.

THERMAL EXPANSION

Has approximately same coefficient of expansion as aluminum or 1.6 x $10.^{-5}$ in./in./°F.

TENSILE STRENGTH—17,000 to 18,000 psi.
FLEXURAL STRENGTH—33,000 to 35,000 psi.
HARDNESS RATING—Barcol 55 to 60
FLEXURAL MODULUS—1.6 psi. x 10^{6}

CODE APPROVALS

FILON meets minimum building code requirements of state, county and municipal building departments. Approved for use by all federal agencies and armed services.

COMMERCIAL STANDARD

FILON types 260 and 900 are guaranteed to comply with Commercial Standard CS214-57, issued by U.S. Department of Commerce.

HEAT AND LIGHT TRANSMISSION VALUES

In percentage ranges of all FILON colors

Compared With Air — Also Shown Is Single Strength Window Glass

TYPE	% Heat Transmitted	% Light Transmitted
Air	100%	100%
SS Window Glass	88	89
THERMOBLOK COLORS		
Canary	20-23	25-30
Beige	25-28	10-15
Dusty Peach	29-33	23-32
Snow	30-34	55-60
Shamrock	31-34	16-21
Tangerine	33-36	15-20
MEDIUM LIGHT TRANSMITTING COLORS		
Nile Green	34-39	37-42
Yellow	37-43	57-63
Turquoise	50-54	35-41
Forest	51-56	20-25
Emerald	51-56	37-46
Coral	57-66	47-56
Green	60-68	52-58
Aquamarine	62-67	42-47
HIGH LIGHT TRANSMITTING COLORS		
Frost	57-67	73-79
Jade	61-68	70-77
Clear	63-68	79-84

TEST METHODS USED IN PREPARING THESE CHARTS

- **Light Transmission:** Measured with S.P.I. Transmissometer having light source of Daylight Deluxe Cool White and Blue fluorescent bulbs.
- **Heat Transmission:** Measured with 250-Watt Infrared light bulb and Wheelco Potentiometer #311.
- The information contained herein is presented in good faith but no warranty is given and all figures are approximate. Proper construction and adequate ventilation are necessary considerations. Refer to the "Guide to Coolness" section of FILON Folder #151.

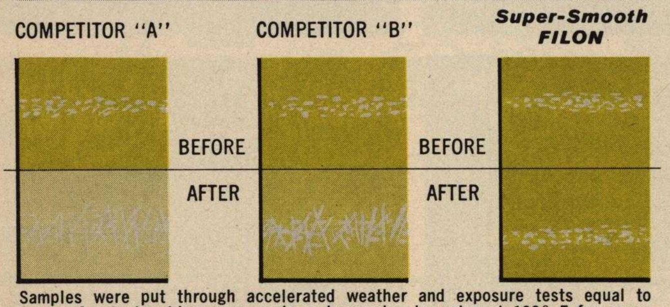
UNIFORM LOADING STRENGTH

Type	Thickness	Weight per Sq. Ft.	Corrugation	Unsupported Span	Load Lbs. per Sq. Ft.	Maximum Deflection
150	.037	5 oz.	2½″	3 Ft.	150 lbs.	5″
180 and 600	.045	6 oz.	2½″	4 Ft.	112 lbs.	4¹¹⁄₁₆″
260 and 900	.060	8 oz.	2½″	4 Ft.	180 lbs.	5¼″
280	.060	8 oz.	2½″	4 Ft.	148 lbs.	5⅛″
320	.075	10 oz.	2½″	4 Ft.	300 lbs.	5¹¹⁄₁₆″

With lateral supports and proper nailing, this uniform loading strength of FILON is considerably higher.

OUTDOOR WEATHERING CHART

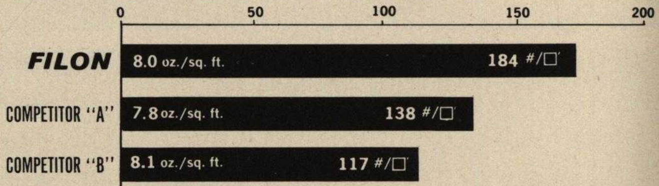
Shows FILON's superior resistance to weather elements and moisture.



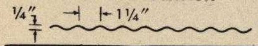
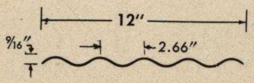
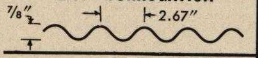
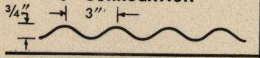
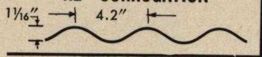
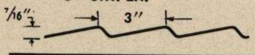
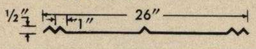
Samples were put through accelerated weather and exposure tests equal to years of actual outdoor use, such as immersion in water at 100° F for seven days, and subjected to severe, prolonged punishment for continuous 24-hour periods in Sun and Wind Machine.

LOAD CARRYING CHART

Proves FILON's greater strength.



Greater strength and high quality are the result of FILON's uniformity and perfect nesting corrugation.

GENERAL SPECIFICATIONS ALL FILON panels with super-smooth finish both sides	STANDARD PANELS									FIRE RETARDANT PANELS**					SUPER† FILON THICKNESS .060 WEIGHT 8 oz.		
PANEL SHAPE	**TYPE NO.**	**COLORS**	**FINISH LENGTH (Feet)**	**FINISH WIDTH / COVERAGE WIDTH (Inches)**	**NO. OF CORRU-GATIONS**	**STD. SIDE LAP**	**FINISH OF EDGES**	**WEIGHT PER SQ. FT.**	**THICK-NESS**	**TYPE NO.**	**WIDTH (Inches)**	**LENGTH (Feet)**	**WEIGHT SQ. FT.**	**THICK-NESS**	**TYPE NO.**	**WIDTH (Inches)**	**LENGTH (Feet)**
1¼″ CORRUGATION 	180	Jade, Clear, Green	8, 10, 12	26/24	20½	1½ Corr.	1 Up 1 Down	6 oz.	.045								
	260							8 oz.	.060								
2½″ STANDARD 	150	Beige*, Canary*, Dusty Peach*, Shamrock*, Snow*, Tangerine*, Aquamarine, Clear, Coral, Emerald, Green, Yellow	4, 5, 6, 8, 10, 12	26/24, 34/32	10 13	1 Corr. (Except 27½ width 1½ Corr.)	Both Down (Except 27½ width 1 Up 1 Down)	5 oz.	.037								
	180	Beige*, Canary*, Dusty Peach*, Shamrock*, Snow*, Tangerine*, Aquamarine, Clear, Coral, Green, Emerald, Forest, Jade, Nile Green, Turquoise, Yellow	4, 5, 6, 8, 10, 12	26/24, 34/32 27½/24 (Jade only)	10 13 10½			6 oz.	.045	600-S	26, 27½	8, 10, 12	6 oz.	.045	280	26 34 40	8, 10, 12
	220-S	Available in all colors. See Special Important Notes, below.	8, 10, 12	26/24, 27½/24, 34/32, 40/37⅜	10 10½ 13 15			7 oz.	.052	900-S	26, 27½ 34, 40		8 oz.	.060			
	260	Dusty Peach*, Snow*, Aquamarine, Coral, Clear, Nile Green, Green, Emerald, Forest, Turquoise, Jade, Yellow	4, 5, 6, 8, 10, 12	26/34, 34/32, 40/37⅜, 27½/24 (Jade only)	10 13 15 10½			8 oz.	.060								
2.67″ CORRUGATION 	260-S	Jade, Clear	8, 10, 12	33¾/32,	13	1 Corr.	Both Down	8 oz.	.060	900-S	33¾ 35	8, 10, 12	8 oz.	.060			
				35/32	13½	1½ Corr.	1 Up 1 Down										
3″ CORRUGATION 	180-S	Jade, Clear	8, 10, 12	30¾/ 27	10	1½ Corr.	1 Up 1 Down	6 oz.	.045	900-S	30¾ 37	8, 10, 12	8 oz.	.060			
	260-S			37/33¼	12			8 oz.	.060								
4.2″ CORRUGATION 	260-S	Jade, Clear	8, 10, 12	42/37.8	10	1 Corr.	Both Down	8 oz.	.060	900-S	42	8, 10, 12	8 oz.	.060			
3″ SHIPLAP 	180	Dusty Peach*, Snow*, Emerald, Yellow	4, 5, 6, 8, 10, 12	24¾/23½	8	1 Leg	1 Up 1 Down	6 oz.	.045								
5V CRIMP 	180-S	Jade, Clear	8, 10, 12	26/24	5 V	2 V's	Both Down	6 oz.	.045								
FLAT PANELS	120	Emerald, Snow, Yellow	30″ x 50 Lin. Ft. (Rolls only)					4 oz.	.030								
	180	Clear, Coral, Green, Frost, Snow, Yellow	4, 5, 6, 8, 10, 12	24, 30, 36				6 oz.	.045	900-S	24, 30, 36	8, 10, 12	8 oz.	.060	280	24, 30, 36	8, 10, 12
	260			36				8 oz.	.060							48	8
DECORATIVE FLAT	120 Dec.	Snow, Frost and Clear; with Gold and Black Jackstraw Pattern	30″ x 50 Lin. Ft. (Rolls only)					4 oz.	.030								
PANELS FOR SHOWER DOORS, TUB ENCLOSURES, PARTITIONS, CABINETS, AND LIGHTING FIXTURES	180 (1¼″x¼″ Corr.)	Flesh, Frost, Snow, Lite Yellow, Powder Blue	30″ x 60″ 30″ x 120″					6 oz.	.045								
	320 FLAT	Frost	24″ x 62″ 24″ x 124″ 30″ x 60″ 30″ x 120″					10 oz.	.075								
GLAZING PANES	G-30	Green, Frost, Clear	13⅝″ x 17⅝″, 18⅝″, 19⅝″, 20⅝″ 14⅝″ x 17⅝″, 18⅝″, 19⅝″, 20⅝″ 15⅝″ x 19⅝″, 20⅝″, 21⅝″														

ADDITIONAL FILON BROCHURES AND HOW-TO-BUILD DATA SHEETS

Order by number from FILON Architectural Service Department, 333 N. Van Ness Avenue, Hawthorne, California

#137	Industrial Uses
#140	Greenhouses
#145	Interior Ideas
#151	Outdoor Living Ideas
#152	Farm Uses
#154	Technical Manual
#501	Glazing Data Sheet
#502	Shoji Screen Data Sheet
#503	Awning Data Sheet
#504	Patio-Carport Data Sheet
#505	Fence Data Sheet

Always insist on the FILON label

Home Improvement Council — Better Your Living

Replacement or Refund of Money — Guaranteed by Good Housekeeping — If Not as Advertised Therein

The Society of the Plastics Industry — SPI

FIRE RETARDANT PANELS — **These panels have flame spread rating 40 to 75. They will not support combustion. They extinguish themselves upon removal of source of flame. For installations where building codes specifically require flame spread rating under 75.

COLORS IN ALL TYPES:
Clear, Green, Aquamarine, Amber.

FM

Underwriters' Laboratories, Inc. Inspected Plastic

†SUPER FILON
Armor Plated Finish with Fiberglas Surfacing Mat on Both Sides.

COLORS:
Stocking: Snow.
Special Orders:
Aquamarine, Clear, Coral, Dusty Peach, Emerald, Green, Forest, Jade, Nile, Green, Turquoise, Yellow.

SPECIAL IMPORTANT NOTES

SPECIAL LENGTHS over 12 feet in all standard configurations and types are available, minimum order 12 panels, maximum length 24 ft.

SPECIAL COLORS in all standard configurations and types, mill run only, minimum order 1,000 sq ft. per color. Special colors also available in non-stocking configurations and types, subject to minimum order requirements for those items.

SPECIAL PANELS to match Galbestos, Steelbestos, 5.25 V-Beam, also 4″ rib, 8″ rib and 4″ shiplap. Available in panel weights of 5 oz., 6 oz., 7 oz., 8 oz., 10 oz. and 12 oz. per square ft.

***THERMOBLOK** colors for minimum heat transmission specifically recommended for Patio Roofs and Awnings. For evaluation of all colors listed above, refer to Heat and Light Transmission Values Chart on Page 2.

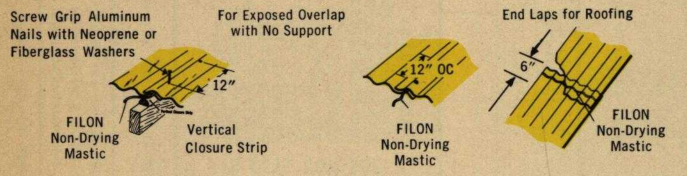
SPECIAL TYPES AND CONFIGURATIONS available in mill run only, with minimum order requirements.

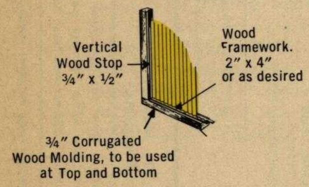
For sizes, colors, other configurations and information not shown, consult the FILON office nearest you, or FILON'S Architectural Service Department, 333 N. Van Ness Avenue, Hawthorne, California.

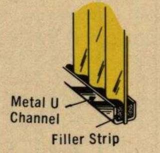
Letter "S" following Type Number means Standard Mill Run quality

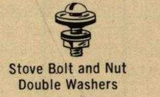
FILON® CONSTRUCTION DETAILS

LAPPING AND SEALING JOINTS

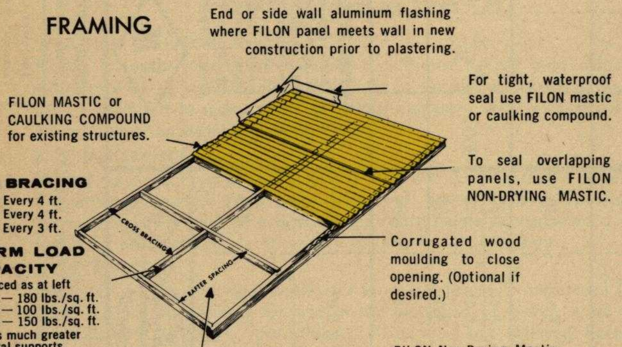



Vertical Wood Stop ¾" x ½"
Wood Framework. 2" x 4" or as desired
¾" Corrugated Wood Molding, to be used at Top and Bottom





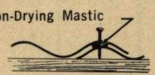
FRAMING


End or side wall aluminum flashing where FILON panel meets wall in new construction prior to plastering.
For tight, waterproof seal use FILON mastic or caulking compound.
FILON MASTIC or CAULKING COMPOUND for existing structures.
To seal overlapping panels, use FILON NON-DRYING MASTIC.
CROSS BRACING
RAFTER SPACING
Corrugated wood moulding to close opening. (Optional if desired.)

CROSS BRACING
Type 260 Every 4 ft.
Type 180 Every 4 ft.
Type 150 Every 3 ft.

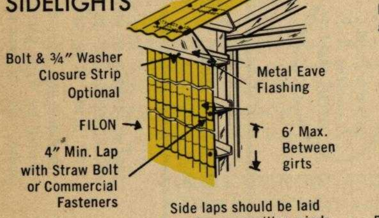
UNIFORM LOAD CAPACITY
when braced as at left
Type 260 — 180 lbs./sq. ft.
Type 180 — 100 lbs./sq. ft.
Type 150 — 150 lbs./sq. ft.
All values much greater with lateral supports

RAFTER SPACING:
For rafters and framing, center to center spacing is as follows for 2½" corrugation:
26" panel—24" cc —(1 lap)
34" panel—32" cc —(1 lap)
40" panel—37⅜" cc —(1 lap)



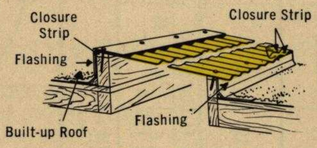
When lapping corrugated sheets, nails are driven in crown of corrugation. Use FILON aluminum weatherproof nails with neoprene or fiberglass washers. Drive nail through center of non-drying mastic. Pre-drilling of holes is recommended. Minimum nail spacing every 12"; in high wind areas every 8".

SIDELIGHTS


Bolt & ¾" Washer Closure Strip Optional
Metal Eave Flashing
FILON
6' Max. Between girts
4" Min. Lap with Straw Bolt or Commercial Fasteners

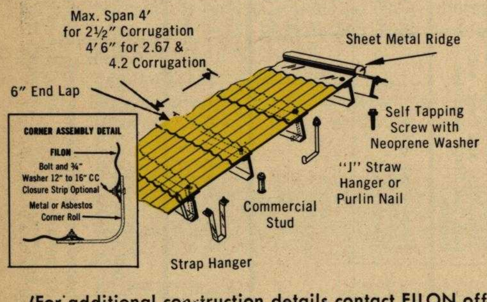
Side laps should be laid away from prevailing winds

SKYLIGHTS



Fasteners spaced every 3rd corrugation. Fasten through crown of corrugation.

ROOFS AND SKYLIGHTS


Max. Span 4' for 2½" Corrugation 4' 6" for 2.67 & 4.2 Corrugation
Sheet Metal Ridge
6" End Lap
CORNER ASSEMBLY DETAIL
FILON
Bolt and ¾" Washer 12" to 16" CC
Closure Strip Optional
Metal or Asbestos Corner Roll
Self Tapping Screw with Neoprene Washer
"J" Straw Hanger or Purlin Nail
Commercial Stud
Strap Hanger

CONVENTIONAL TYPE FASTENERS
Used in Metal Building Construction
For More Complete Details Refer to AIA FILE NO. 12C

(For additional construction details contact FILON office nearest you.)

HOW TO SPECIFY FILON

1. MATERIAL—All panels of fiberglass reinforced plastic shown on plans must be labeled and shall be manufactured to the standards established for FILON Type_________Premium Quality which are that:

- **A.** Average weight shall be________oz./sq. ft. (with________oz./sq. ft. of fiberglass reinforcement).
- **B.** Thickness shall be________.
- **C.** Each panel shall have a hardness rating Barcol 55 to 60.
- **D.** Each panel shall support________lbs./sq. ft. on an unsupported 4 ft. span (or) as shown on drawings (or) in specifications.
- **E.** Surface shall be smooth on both sides.
- **F.** Each panel shall be reinforced with fiberglass and parallel nylon strands.
- **G.** Panels shall have uniform thickness and color distribution.
- **H.** Panels shall have uniform pitch and depth.
- **I.** Panels shall be free of cellophane material.
- **J.** Panels shall maintain the high standards of the Society of the Plastics Industry.

2. COLOR, CONFIGURATION AND PHYSICAL MEASUREMENTS

- **A.** Color shall be ____________, with an approximate light transmission of ________% (see heat and light transmission chart for values and test method).
- **B.** Configuration(s) shall be____________ (1¼" x ¼", 2½" x 9/16", 2.67" x ⅞", 3" x ¾", 3" x 9/16", 4.2" x 1 1/16" corrugated, 4" x ¾" shiplap, 5V Crimp, 5.25V-Beam, 8" x 1" Rib, flat, etc.) And where specified shall nest with standard corrugated____________ (fill in type and size of metal or asbestos).
- **C.** Width of panels shall be________(or) the same as corrugated____________ (fill in size or type of metal or asbestos) to be used, and length of panels shall be________(or) as shown on drawings or as in specifications.

3. LOADING—Purlin or girt spacings shall conform with the recommendations for FILON as shown in the A.I.A. File No. 26-A-9.

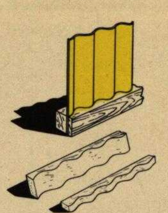
4. FASTENING—Where nested with sheet metal or asbestos-cement, the fasteners shall conform with the recommendation of the manufacturer of the sheet metal or asbestos material (with the exception that fasteners shall be fitted with FILON washers) and shall be spaced in accordance with FILON recommendations.

5. CEMENTING LAPS—For weatherproofing, side and end laps shall be cemented with FILON Clear Liquid Adhesive where required on drawings or in specifications. Use of FILON non-drying sealing cord optional. (Application instructions for the FILON Clear Liquid Adhesive and sealing cord will be found on the containers and should be followed to assure a good seal.)

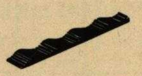
6. APPLICATION—On corrugated roofs and walls, end and side laps shall conform with the recommendations of the manufacturer of the metal or asbestos-cement sheets. Laps in all cases to be away from prevailing winds.

7. CLOSURES—Horizontal or vertical closure strips (wood, rubber or aluminum as specified) shall match the FILON corrugations.

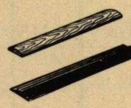
FILON ACCESSORIES



CORRUGATED WOOD STOPS, 1⅝" or ¾", for 2½" corrugation and shiplap. Wood molding band-sawed to fit corrugation.

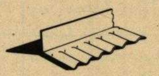


RUBBER CORRUGATED STOPS for sealing across corrugations at ends of panels. Provide greater shock absorption where panels butt against metal structure.

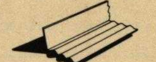


WOOD AND RUBBER VERTICAL STRIPS for 2½' standard corrugations. For sealing at side lap of panel, or for underneath lap joints. (Will cover a standard 2 x 4.)

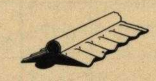
ALUMINUM FLASHING



END WALL FLASHING 28" Length, 10" Girth, 2½" corrugation. For use when end of FILON panel meets wall of another structure.



SIDE WALL FLASHING 5'6" Length, 10" Girth, 2½" corrugation. For use when side of FILON panel joins wall of a structure.



CORRUGATED RIDGE ROLL 28" Length, 12" Girth. 2" roll to match 2½" corrugation.

FILON ALUMINUM WEATHERPROOF NAILS with neoprene washers attached, 1¾" x 10 gauge. When lapping corrugated sheets, nails are driven in the crown of the corrugation to avoid seepage of water through nail holes.

FILON WASHERS—Laminated metal and neoprene, or laminated fiberglass and neoprene.

FILON CLEAR ADHESIVE for sealing side laps and end laps; also for bonding panels to other materials. Available in pint or quart containers.

FILON NON-DRYING MASTIC for waterproofing, sealing overlapping joints and caulking wherever necessary. Available in 20 ft. and 80 ft. rolls.

FILON PLASTIC REFINISHER Quart and gallon cans, in all FILON COLORS.

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